

## **MEDIA STORAGE SYSTEM AND METHOD**

### **RELATED APPLICATION**

**[0001]** The present application claims priority under 35 U.S.C. § 119(e) to U.S. Provisional Patent Application Serial No. 60/395,571, filed July 12, 2002, which is hereby incorporated by reference in its entirety.

### **BACKGROUND OF THE INVENTION**

#### **Field of the Invention**

**[0002]** The invention relates generally to methods and systems for storing packages such as multimedia packages. It more particularly relates to storage of packages of varying sizes.

#### **Related Art**

**[0003]** The information contained in this section relates to the background of the art of the present invention without any admission as to whether or not it legally constitutes prior art.

**[0004]** There have been many different units for storing multimedia packages. For example, reference may be made to U.S. Patent Nos. 5,558,235 and 6,332,546, each of which is hereby incorporated by reference.

**[0005]** U.S. Patent No. 5,558,235 discloses a device for storing different types of packages such as multimedia packages in a closely spaced, upright stack configuration in a side-by-side manner by utilizing individual compartments. Each one of the packages can be flipped between forwardly and rearwardly inclined

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positions to inspect the different packages and for aiding in the selection of a given one of them.

**[0006]** U.S. Patent No. 6,332,546 discloses an apparatus having at least one crowned surface which enables each of the supported packages to be repositioned to another position. The apparatus also includes a pair of front and rear retainers for confining the series of packages therebetween.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

**[0007]** In the following, the invention will be explained in further detail with reference to the drawings, in which:

**[0008]** Fig. 1 is a pictorial illustration of an embodiment of a media storage tray according to the present invention;

**[0009]** Fig. 2 is a pictorial illustration of the media storage tray of Fig. 1 with the rear retainer assembly moved to a forward position;

**[0010]** Fig. 3 is a pictorial illustration of the media storage tray of Fig. 1 with the front retainer and the rear retainer in a flattened position for, for example, transportation;

**[0011]** Fig. 4 is a top view of the media storage tray of Fig. 1, illustrating it in a reduced scale and with a rear retainer assembly shown in an intermediate position;

**[0012]** Fig. 5 is a cross-sectional view of the media storage tray of Fig. 4 taken along V-V;

**[0013]** Fig. 6a is a pictorial illustration of the top of one embodiment of a glide for use with the media storage tray of Fig. 1;

**[0014]** Fig. 6b is a pictorial illustration of the bottom of the glide of Fig. 6a;

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**[0015]** Fig. 7a is a pictorial illustration of the front of one embodiment of an idler for use with the media storage tray of Fig. 1;

**[0016]** Fig. 7b is a pictorial illustration of the back of the idler of Fig. 7a;

**[0017]** Figs. 8a-d are pictorial illustrations of one embodiment of a rear retainer assembly for use with the media storage tray of Fig. 1;

**[0018]** Figs. 9a-b are pictorial illustrations of one embodiment of a front retainer for use with the media storage tray of Fig. 1;

**[0019]** Figs. 10a-h are pictorial illustrations of the assembly of the front retainer of Figs. 9a-b illustrating the insertion of the assembly into the media storage tray;

**[0020]** Fig. 11 is a pictorial illustration of another embodiment of a media storage tray according to the present invention;

**[0021]** Fig. 12 is a pictorial illustration of the media storage tray of Fig. 11 with the rear retainer assembly moved to a forward position;

**[0022]** Fig. 13 is a pictorial illustration of the media storage tray of Fig. 11 with the front retainer and the rear retainer in a flattened position for, for example, transportation;

**[0023]** Fig. 14 is a pictorial illustration of yet another embodiment of a media storage tray according to the present invention;

**[0024]** Fig. 15 is a pictorial illustration of still another embodiment of a media storage tray according to the present invention;

**[0025]** Fig. 16 is a pictorial illustration of another embodiment of a media storage tray according to the present invention;

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**[0026]** Fig. 17a is a pictorial illustration of another embodiment of a media storage tray according to the present invention;

**[0027]** Fig. 17b is a pictorial illustration of the bottom of the media storage tray of Fig. 17a;

**[0028]** Fig. 17c illustrates a detailed view of the front retainer receiving portion of the media storage tray of Fig. 17a;

**[0029]** Fig. 17d illustrates a bottom view of the media storage tray of Fig. 17a;

**[0030]** Fig. 17e illustrates a detailed bottom view of the front retainer receiving portion of the media storage tray of Fig. 17a;

**[0031]** Fig. 18 illustrates a bottom view of a further media storage tray, which is constructed according to an embodiment of the invention;

**[0032]** Fig. 19 is an enlarged sectional view of the tray of Fig. 18 taken substantially on line 19-19 thereof;

**[0033]** Fig. 20 is an enlarged detail view of a portion of the tray of Fig. 18;

**[0034]** Fig. 21 is a view of the tray of Fig. 18, illustrating it in the process of being mounted to a surface;

**[0035]** Fig. 22 is a view similar to Fig. 19, illustrating the tray of Fig. 18 in the process of being mounted to a surface;

**[0036]** Fig. 23 illustrates a pictorial view of another media storage tray, which is constructed in accordance with another embodiment of the invention;

**[0037]** Fig. 24 illustrates a pictorial view of still another media storage tray, which is constructed in accordance with still another embodiment of the invention; and

**[0038]** Fig. 25 illustrates a pictorial view of a base for the tray of Fig. 24.

**DESCRIPTION OF CERTAIN EMBODIMENTS OF THE INVENTION**

**[0039]** According to certain ones of the disclosed embodiments of the present invention, there is provided a method and system for storage of packages such as multimedia packages for CDs, DVDs, VHS cartridges and others. The storage system can be mounted to a piece of furniture as a pull out shelf, or can be mounted to a fixed or moveable shelf, or other convenient support surface. The system and method of the preferred embodiments relate in general to a simplified, two rail system, which is less noticeable and relatively less expensive to manufacture in certain circumstances. There are other disclosed features and advantages relating to package retainers and other components, which are various examples of embodiments of the present invention.

**[0040]** According to the preferred embodiment of the present invention, there is provided a multimedia storage device for supporting packages, including at least two spaced-apart rails, each rail having at least one series of curved portions. The curved portions may be generally semi-circular in cross-section and may intersect each other to define a series of equally spaced-apart notches at their intersection. Each notch on one of the rails is adapted to receive a first end of a bottom edge portion of a package, and a corresponding notch on another of the rails is adapted to receive a second of said bottom edge. A front retainer and a rear retainer are adapted to confine a plurality of packages therebetween.

**[0041]** In the disclosed embodiments, each one of the rails includes a series of inner curved portions and a series of outer curved portions. The inner curved

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portions on two rails are adapted to support a package of small width, and the outer curved portions on two rails are adapted to support a package of large width.

**[0042]** In one disclosed embodiment, a rear cross-bar secures the rails in a spaced-apart configuration. Also, the front retainer is a rodlike retainer mounted at a front end of a pair of rails, and is captured in place according to an embodiment of the present invention. The retainer may be composed of wire or plastic material and adapted to be secured in one of two positions.

**[0043]** According to the disclosed embodiments of the invention, the rear retainer is adapted to glide along the rails. The rear retainer includes a glide having a central portion and a pair of wings, wherein each of the wings is adapted to secure the glide to a rail and to enable the glide to be movable along the rail.

**[0044]** According to one of the disclosed embodiments, an idler is adapted to be secured to the glide and is adapted to pivot between an upright use position and a flat storage position at substantially right angles to the upright position.

**[0045]** As disclosed herein, the central portion of the glide includes a pair of peg-receiving slots, and the idler includes a pair of pegs adapted to be inserted into the slots for securing the idler to the glide. The central portion may further include a back stop for limiting backward movement of the idler in an upright position. The central portion may include an overhang above a slot formed at each wing for securing the glide to the rail.

**[0046]** Figs. 1-5 illustrate one embodiment of a media storage system according to an example of the present invention. The media storage system 10 includes a pair of rails 12a, 12b, being spaced apart from each other. Each rail 12a, 12b is

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provided with a screw hole, such as hole 14, for securing the rails to, for example, a shelf. Of course, any of several known mechanisms may be used for securing the rails to the shelf including, but not limited to, adhesive tapes, glue, nails, etc. The rails 12a, 12b are preferably made of a lightweight plastic material, but may be made of other suitable material such as metal.

**[0047]** Each rail is provided with two series of curved surfaces, such as outer curved surface 16 and inner curved surface 18. The curved surfaces 16,18 are adapted to support a series of media packages in either a forwardly inclined or a rearwardly inclined position. The curved surfaces 16, 18 have substantially a series of semi-circular bumps forming a series of notches therebetween. Packages may be shifted from one notch to another by flipping the packages forward or rearward. This aspect of the curved surfaces is described in greater detail in U.S. Patent No. 6,332,546, which is hereby incorporated by reference in its entirety.

**[0048]** The two rails 12a, 12b are spaced apart such that one end of a stored package rests on each rail. In the embodiment illustrated in Fig. 1, the rails 12a, 12b are spaced apart such that a media package such as a CD package may be stored with the left end of the bottom edge of the package resting on the left rail 12a and the right end of the bottom edge of the package resting on the right rail 12b.

**[0049]** Each pair of curved surfaces 16, 18 is adapted to receive a package of different widths. For example, the inner curved surfaces 18 may be spaced apart to accommodate narrow packages such as a VHS package, while the outer curved surfaces 16 may be arranged to accommodate a larger package such as a DVD or CD package. Further, each pair of curved surfaces 16, 18 may be arranged to

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receive the packages in differing orientations. For example, the outer curved surfaces 16 may be arranged to receive a DVD package with its longer end as the bottom edge. This orientation may provide a lower profile for a shelf with more horizontal space and less vertical space.

**[0050]** Further inward of the inner curved surface 18, an inner glide surface or flange 20 may be provided on each rail 12a, 12b. As described in further detail below, the inner glide surface 20 serves to engage a movable rear retainer and provides a surface for the rear retainer to glide upon. The glide surface 20 may be a flat narrow region along the bottom edge of the rail.

**[0051]** As illustrated most clearly in Fig. 5, a pair of glide ledges or guide flanges such as a glide ledge 22 is provided below the curved surfaces 16, 18. The glide ledge 22 protrudes downward below the curved surfaces 16, 18 and serves to guide or limit lateral movement of the rear retainer relative to the rails 12a, 12b. The rear retainer has a pair of upstanding side retainers 38a and 38b which cooperate with the rail glide ledges to limit lateral movement of the rear retainer.

**[0052]** The outside of each rail 12a, 12b is provided with an outer side surface 21 which rises above the curved surfaces 16, 18. The side surface 21 laterally retains the media packages and prevents them from sliding to the side and off the rails.

**[0053]** In the embodiment illustrated in Figs. 1-3, a rear cross bar or member 23 is provided to secure the rails 12a, 12b in the spaced-apart open frame configuration. The rear cross bar 23 may be integrally formed with the rails 12a, 12b and joins the rails 12a, 12b at the rear of the rails. The rear cross bar or member 23



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is provided with a screw hole 24 for securing to, for example, a shelf. Thus, the screw holes 14 on the rails 12a, 12b and the screw hole 24 on the rear cross bar 23 firmly secure the media storage system 10 in a desired position.

**[0054]** The packages may be retained in a forwardly or rearwardly inclined configuration by a front retainer 25 and a rear retainer assembly 27. In the illustrated embodiment, the front retainer 25 is an elliptical wire that is in a fixed, but pivotable, position. The front retainer 25 and its installation are described in further detail below with reference to Figs. 9a-10h.

**[0055]** The rear retainer assembly 27 includes an idler 29 and a glide 32. The glide 32 allows the assembly 27 to move to different positions along the rails 12a, 12b to accommodate a varying number of media packages that may be stored on the rails. For example, Fig. 2 illustrates the rear retainer assembly 27 in a forward position. The rear retainer assembly 27 is described in detail below with reference to Figs. 6a-8d.

**[0056]** Each of the front retainer 25 and the idler 29 of the rear retainer assembly 27 are adapted to be folded down, for example, for facilitating transportation or storage. Fig. 3 illustrates the media storage system 10 with both the front retainer 25 and the idler 29 in the folded down position.

**[0057]** Figs. 6a and 6b illustrate one embodiment of the glide 32 illustrated in Figs 1-5 for use with a media storage system. The glide 32 includes a central glide portion 34 and a pair of glide wings 36a, 36b. Each glide wing 36a, 36b is located on the sides of the central glide portion 34 and extends outwardly from the central glide portion 34. The glide wings 36a, 36b have a generally smooth flat surface.

The pair of upstanding side retainers 38a, 38b extend upwardly at the end of each glide wing 36a, 36b. As described below, the side retainers 38a, 38b facilitate securing of the glide 32 to the rails of a storage system.

**[0058]** At the junction of the central glide portion 34 and each glide wing 36a, 36b, a rail-receiving groove or slot 41 is formed. A central overhang 43 extends from the central glide portion 34 [above] to help define the rail-receiving slot 41.

**[0059]** The central glide portion 34 also includes a back stop 45 which extends upwardly in a rearwardly inclined manner. Further, a pair of ear-receiving slots 47 are formed on each side of the back stop 45. A pair of peg-receiving slots 49 are formed on the inside of the central glide portion 34. The peg-receiving slots 49 are adapted to receive round pegs formed on an idler, as described below. A flex rib 50 is provided on at least one side of the central glide portion 34 for facilitating installation of the idler.

**[0060]** Figs. 7a and 7b illustrate one embodiment of the idler 29 illustrated in Figs 1-5 for use with glide illustrated in Figs. 6a and 6b. The idler 29 includes an idler plate 52 which serves as a retainer for the stored packages. The idler plate 52 of the illustrated embodiment is of a solid elliptical configuration. However, it should be understood that a non-solid retainer may also be used. Further, the idler plate 52 may be of any practical shape. The idler 29 also includes a pivot portion 54 having a pair of pegs 56a, 56b and a pair of ears 58a, 58b. The pegs 56a, 56b are round pegs or pins adapted to allow the idler 29 to pivot.

**[0061]** Figs. 8a-8d illustrate the engagement of the idler 29 of Figs. 7a-b to the glide 32 of Figs. 6a-b. During insertion, one of the pegs 56a, 56b of the idler 29 may

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be inserted into one of the peg-receiving slots 49 of the central glide portion 34 of the glide 32. Then, the other of the pegs 56a, 56b may be slid past the flex rib 50 (illustrated in Fig. 8c) and into the other peg-receiving slot 49. With the idler 29 assembled with the glide 32, the idler 29 may pivot between the folded down position (Fig. 8a) and the upright position (Fig. 8b). In the upright position, the idler plate 52 rests against the back stop 45, which prevents the idler plate 52 from falling further back. Additionally, the ears 58a, 58b of the idler 29 rest in the ear-receiving slots 47 of the central glide portion 34 of the glide 32.

**[0062]** Referring again to Fig. 5, the engagement of the glide 32 to the rails 12a, 12b is more clearly illustrated. The glide wings 36a, 36b of the glide 32 may be snapped into the rails by slightly deforming the rails and inserting the inner glide surface 20 into the rail-receiving slots or grooves 41 of the glide 32. Further, the side retainers 38a, 38b of the glide 32 may be inserted past the glide ledge 22 of the rails 12a, 12b. Thus, the glide is secured to the rails and is capable of sliding adjustably along the rails.

**[0063]** Figs. 9a and 9b illustrate one embodiment of the front retainer 25 illustrated in Figs. 1-5. The illustrated front retainer 25 is provided with a partially elliptical, rodlike U-shaped retainer 61. The retainer 61 may be composed of suitable resilient material such as wire or plastic material. It will be understood by those skilled in the art that many other configurations may be used for this portion. Cross segments or feet portions 63a, 63b protrude outwardly from the bottom ends from a pair of leg portions 62 and 64 respectively of the retaining portion 61. The cross segments or feet portions 63a, 63b are sized for installation into the rails of a

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media storage system, as described below with reference to Figs. 10a-h. From the outer ends of the cross segments 63a, 63b, a pair of down turned end portions 65a, 65b protrude downwardly and are disposed at right angles to the feet portions 63a, 63b.

**[0064]** The installation of the front retainer 25 into a media storage system will now be described in greater detail with reference to Figs. 10a-h. The legs 62 and 64 are manually flexed slightly toward one another to align the end portions 65a, 65b with a pair of leg-receiving slots 67a, 67b respectively. The legs 65a, 65b are inserted downwardly into the leg-receiving slots 67a, 67b that may be formed at one end of the storage system, such as at the front end of rails. Fig. 10b is a view from the bottom of the media storage system of the insertion of one leg 65b into the leg-receiving slot 67b.

**[0065]** Referring now to Figs. 10c-f, with the legs 65a, 65b inserted, the legs 62 and 64 are then released to allow them to spring apart. Thus, an outward force acts on the legs 62 and 64 of the retaining portion 61 of the front retainer 25. The outward force causes the legs 65a, 65b to move against and past a pair of angular flex retaining ribs such as a flex rib 69. As illustrated in Fig. 10d, the tip of the flex rib 69 flexes to allow the leg portion 65b to move past. Once the leg portion 65b has cleared the flex rib 69, the tip of the flex rib 69 springs inwardly and returns to its natural unstressed position, as illustrated in Fig. 10f to help retain the leg portion 65b. In this position, the cross segment 63b of the front retainer 25 rests outwardly laterally spaced from the flex rib 69. The front retainer 25 has a stop formed by rib portion 72, and rib portions 74 and 76 configured in a U-shaped, which limits its

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backward movement of the segment 63 to cause it to rest in a desired upright use position as shown in Fig. 10e. In such a position, the leg portion 65b rests against the rib portion 72. As illustrated in Figs. 10g and 10h, the front retainer 25 is permitted to pivot into its storage position folded flat into a generally horizontal disposition at an angle of slightly more than 90° with respect to its generally upright use position. In this regard, the leg portion 65b moves into a space adjacent to the wire support rib 74.

**[0066]** It will be understood that, although the illustrated embodiments show a front retainer that is fixed and a rear retainer that can glide or slide to an adjusted position, other configurations may have an adjustably slidable front retainer and a fixed rear retainer. Still other configurations may have two gliding or sliding retainers.

**[0067]** Figs. 11-13 illustrate another embodiment of the media storage system according to the present invention. The media storage system 81 includes a pair of rails 83a, 83b, each having a screw hole 85 for mounting. The underside of each rail 83a, 83b is provided with a cutout 86 which provides a smaller footprint for installation. Thus, the media storage system 81 may be mounted on a shelf, for example, which is narrower than the width of the storage system 81. Accordingly, the screw holes 85 are provided further inward than those illustrated in the embodiment illustrated in Figs. 1-5.

**[0068]** Each rail is provided with an outer curved surface 87 and an inner curved surface 89, similar to those described above with reference to Figs. 1-5. Further, a rear cross bar 92 connecting the two rails 83a, 83b, a front retainer 94 and a rear

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retainer assembly 96 are provided. The embodiment illustrated in Figs. 11-13 also includes a front cross bar 98 for further rigidity.

**[0069]** Fig. 14 illustrates yet another embodiment of a media storage system according to the present invention. The media storage system 101 includes a pair of rails 103a, 103b, similar to those described above. The embodiment illustrated in Fig. 14 is adapted to be mounted as a drawer and is provided with a sliding wheel 105 and a pair of sliding guides 107 on the outside of each rail 103a, 103b. Further, a front cross bar or member 108 of the media storage system 101 is provided with a cutout for easy grasping of the system 101 for pulling in a drawer-like manner. A rear cross bar or member 109 cooperates with the rails and pair of rails 103a, 103b, as well as the front member 108 to form a general open frame configuration in a general rectangular shape and define a generally rectangular open space.

**[0070]** Fig. 15 illustrates still another embodiment of a media storage system according to the present invention. The media storage system 112 is provided with a pair of rails 114a, 114b. Each rail is provided with a pin track 116 on its outside surface. Each pin track 116 may engage one or more pins (not shown), when mounted to, for example, a furniture unit (not shown). The system 112 may then slide on the pins for easy access.

**[0071]** The system 112 is provided with a rear cross bar 118 and a front cross bar 121. The front cross bar 121 is provided with a cutout 123 for facilitating grasping and sliding of the system on the pins.

**[0072]** Fig. 16 illustrates yet another embodiment of a media storage system. The storage system 125 includes a unibody tray portion 127 having a pair of side

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segments 129a, 129b. Each side segment 129a, 129b is provided with an elongated pin-receiving track 132 on its outside surface, similar to those described above with reference to Fig. 15. The system 125 also includes a rear cross bar 134 and a front cross bar 136. The front cross bar 136 is provided with a cutout 138 for facilitating grasping and sliding of the system.

**[0073]** Figs. 17a-d illustrate another embodiment of a media storage system. The media storage system 141 includes a tray portion 143 having a plurality of rows of storage sections. Each row of the tray portion 143 is provided with one or more rows of curved surfaces. A front cross bar 145 is provided with a cut out 147 for facilitating grasping of the system 141.

**[0074]** On the outside of the front portion and at the intersection of the rows of storage sections, the system 141 includes a front retainer receiving portion 149. The front retainer receiving portion 149 is similar to that described above with reference to Figs. 10a-h and is provided with a flex rib 152, a guard rib 154, a wire support rib 156 and a wire wall support 158. The illustrated guard rib 154 and the wire support rib 156 are connected by a U-shape segment.

**[0075]** Referring now to Figs. 18-22, there is shown a media storage system 201, which is constructed in accordance with an embodiment of the invention, and which includes a pair of spaced-apart rails 203 and 205 which are generally similar to the rails of the system 10 of Fig. 1, except that the rails 203 and 205 are generally parallel to one another but converge slightly toward one another at the front end portion thereof as indicated in Fig. 1. As hereinafter described in greater detail, the

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construction of the system 201 facilitates the mounting thereof to a support surface (not shown).

**[0076]** A series of screw holes such as a screw hole 207 permit the system 201 to be fastened to a suitable support surface. A front rodlike retainer 209 is mounted at the front end of the system 201 and is similar to the retainer shown in Figs. 9a-10h. A rear retainer assembly 212 is slidably mounted on the rails 203 and 205 and is generally similar to the assembly 27 of Fig. 1. The assembly 212 generally comprises an idler 214 and a glide 216. The idler 214 is generally similar to the idler 29, and the glide 216 is generally similar to the glide 32 of Fig. 1. A pair of glide surfaces or flanges 218 and 219 are formed on the respective rails 203 and 205 and are received in a pair of grooves or slots formed on opposite sides of the glide 216. In this manner, the glide 216 is adapted to be moved positionally and slidably along the rails 203 and 205.

**[0077]** In order to ensure that the two rails 203 and 205 are fixed to a support surface in a substantially parallel manner, and yet allow the glide 216 to move freely back and forth along the rails, a pair of stops such as a stop 229 (Fig. 20) are provided at the front portions of the rails 203 and 205 to limit the forward movement of the glide 216 to the position as indicated in Fig. 21. In this position, when the glide 216 is slid manually forwardly into engagement with the stops, the rails 203 and 205 are flexed apart slightly to cause them to assume a generally parallel disposition. In this regard, the rails 203 and 205 have a pair of depending glide ledges or flanges such as a guide ledge 231 serve to limit lateral movement of the glide 216 in a similar manner as the glide ledge 22 of Fig. 5. As shown in Fig. 20,



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the glide ledges such as the glide ledge 23 on the underside of the rail 203 have outwardly flared forward portions such as the flared forward portion generally indicated at 233 to cause a pair of upstanding side retainers 227 and 229 to move firmly into engagement with the flared forward portions to provide the desired spacing between the rails. In the position as shown in Fig. 21, the system 201 is then fastened to the support surface utilizing the screw holes such as the screw hole 207. Thereafter, the glide 212 can be slid away from the stops such as the stop 207 and the forward flared portions of the side retainers to cause the glide 212 to move freely relative to the rails 203 and 205. In this regard, as thus seen in Fig. 19, the glide 216 has the pair of upstanding side retainers 227 and 229 which are generally similar to the retainers 38a and 38b as shown in Figs. 6a and 6b. When the glide 216 is disposed intermediate the end portions of the rails 203 and 205 as indicated in Fig. 18, there is a gap or clearance space between the side retainers 227 and 229 and the respective rails 205 and 203. In this regard, as shown in Fig. 19, a space or gap 230 is disposed between the upstanding side retainer 229 and its rail 205. This clearance space permits the two rails 203 and 205 to be moved positionally and adjustably away from one another to a slight extent during the installation procedure. Once the system 201 is fastened to a support surface, the glide 212 can then be moved freely relative to the rails 203 and 205 even though the rails such as the rail 205 moves against the glide upstanding side retainer such as the retainer 229 to eliminate the space or gap such as the space 230 as shown in Fig. 19. In this regard, the glide 216 forces the rails 203 and 205 apart as the glide 212 moves forwardly until it engages the stops such as the stop 207. This movement of the

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glide causes the rails to assume a generally true parallel configuration as indicated in Fig. 21 so that it can be properly fastened to the support surface. Due to the space or gap 230, the glide 212 is still thereafter able to move freely relative to the rails.

**[0078]** Referring now to Fig. 23, there is shown another media storage system 232, which is generally similar to the system 10 of Fig. 1, and which is constructed in accordance with another embodiment of the present invention. The system 232 includes a pair of rails 234 and 236, which are generally similar to the rails of the system 10 of Fig. 1, except that the rails 234 and 236 are connected together only by a front rodlike retainer 241 and a slidably mounted rear retainer assembly 243, which are generally similar to the retainer and retainer assembly previously described herein. Thus, there are no other cross members to interconnect the rails 234 and 236. The slidably mounted rear retainer assembly 243 includes an idler 245 and a glide 247 to enable the retainer assembly 243 to slide forwardly and rearwardly relative to the rails 234 and 236.

**[0079]** A series of screw holes such as a screw hole 238 permit the system 232 to be fastened to a suitable support surface in a similar manner as that disclosed in Fig. 18. In this regard, the glide 247 can be slid first to the front portion of the rails 234 and 236 for facilitating the fastening the front portions of the rails in the desired position. Thereafter, the glide 247 is slid rearwardly against a pair of stops (not shown) in a rear position of the rails 234 and 236 so that the rear portions of the rails can be fastened to the support surface. In this manner, the rails 234 and 236 can be fastened to a support surface in a relatively exact parallel configuration in a similar

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manner as the media storage system 201 may be fastened to a support surface. In this regard, the glide 247 has a sufficient space or clearance gap (not shown) which is similar to the space or clearance gap 230 of Fig. 19.

**[0080]** Referring now to Figs. 24 and 25, there is shown a media storage system 249, which is generally similar to the system 125 of Fig. 16 and is similar in some respects to the system shown in U.S. Patent No. 6,332,546, except that the system 249 includes a pair of side grooves such as a side groove 252 for receiving a pair of pins such as a pin 254 on a base 256 (Fig. 25). In this regard, the system 249 includes a separate base 256 which can be fastened to a support surface by a group of screw holes such as a screw hole 257. Once the separate base is fastened to the support surface, the tray portion of the system 249 as shown in Fig. 24 can be readily assembled to the base 256. Such an arrangement is versatile, and readily able to be fastened to a variety of support surfaces. Alternatively, the side grooves may be utilized to receive pins (not shown) projecting horizontally from a furniture unit (not shown) when the system 249 is mounted to a furniture unit such as a desk or hutch.

**[0081]** While particular embodiments of the present invention have been disclosed, it is to be understood that various different modifications and combinations are possible and are contemplated within the true spirit and scope of the appended claims. There is no intention, therefore, of limitations to the exact abstract and disclosure herein presented.